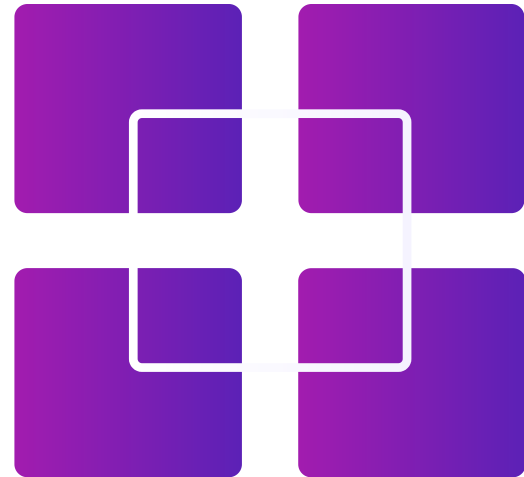# Lecture 11

- **Behavioral Interventions**
- **Decision-making**

Agenda

- Method: Behavioral Interventions
  - Strengths
  - Weakness
  - How-to/ examples
- Topic: Decision-making
  - Fox (2015)
  - Prospect theory
  - Decision biases
- Discussion
  - Behavioral Interventions in Decision-making: Johnson & Goldstein (2003)
  - Discussion questions
- Next class

Method: Behavioral Interventions

- Strengths: Getting to "real" decision, behavior, and impact

- Weakness: What about mechanisms/ control/ causality?

- Examples: Successful interventions, how-to

Strengths: Getting to "real" decision, behavior, and impact

○ "Behavioral" Economics vs. Classic, theory in Economics

    ○ We want to study "real" decisions

○ "Behavioral" Intervention

    ○ We want to make "real" changes

○ Not much need to sell the impact

    ○ Is this finding generalizable in real-world?

    ○ Why this finding is important for society?

"What behavior do we want to change?"

- How can we make people **donate more**? (Organ; money)

- How can we make people **vote more**?

- How can we make people **save more**? (e.g., Save More Tomorrow)

- How can make people **exercise/ eat healthy**?

- Q. We already discussed one behavioral intervention paper. Which one?

- Q. What behavior do YOU want to change?

"Ok, then how can we change the chosen behavior?"

- How can we make people donate more? Default (e.g., status-quo bias)

- How can we make people vote more? "Voter" sticker (e.g., identity theories)

- How can we make people save more? Enrollment/ framing (e.g., self-control, status-quo, loss aversion)

- How can make people exercise/ eat healthy? Temptation bundling

- Q. What would you need to change YOUR chosen behavior?

Weakness: Contribution? Problem? Practical issues?

- Q. What are some weaknesses of behavioral interventions?
  - Does it look hard to do?

Weakness: Contribution? Problem? Practical issues?

○ Hard (sometimes almost impossible) to establish causality

    ○ Experimental control? Control group? Is it ethical? (donation)

    ○ It is not: "Status-quo bias predicts the increased saving"

    ○ It is: "Save More Tomorrow program predicts the increased saving"

○ Hard to specify a theoretical mechanism

    ○ Exactly what is driving this effect? And how?

Weakness: Contribution? Problem? Practical issues?

○ Hard to make a theoretical contribution

  ○ Based on existing (potentially very well-established) effects

  ○ Based on strong effects (because intervention opportunities are rare)

○ Just hard to do… practically

  ○ Involves a lot of money

  ○ Involves a lot of time

  ○ Involves a very rare opportunity (from governments or companies)

  ○ Mostly happens with top universities

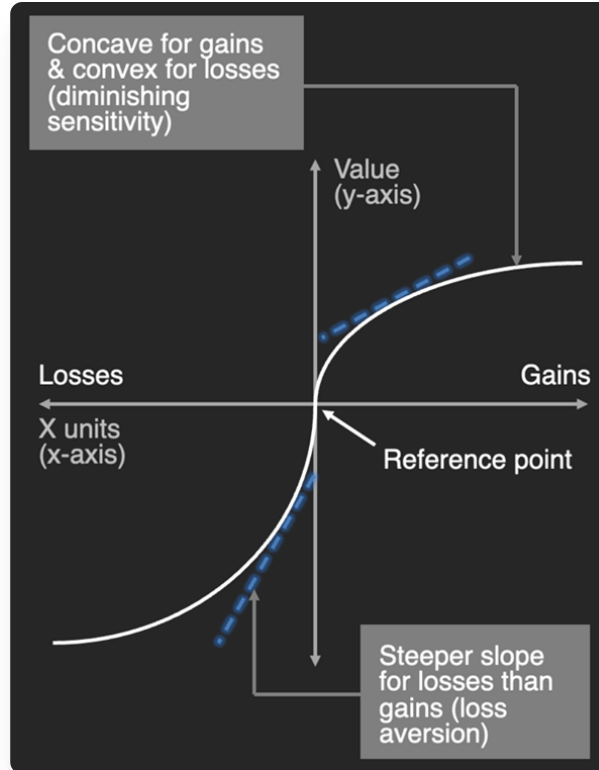 ○ Mostly happens with tenured professors, or professors who can afford this

Topic: Decision-making

- Fox (2015)
- Prospect theory
- Decision biases

Fox (2015): Three philosophies, and their history

- Decision analysis (rational revolution)
- Behavioral science (irrationality's revenge)
- Bounded rationality

Behavioral science: Prospect theory

Behavioral science: Prospect theory

○   Outcomes defined relative to a reference point

○   Loss aversion

    ○   Losses loom larger than gains: $v(x) <\mid v(-x)\mid, x > 0$

    ○   Steeper slope for loss curve than gain curve

○   Diminishing sensitivity away from the reference point

    ○   Shape of function is concave for gains and convex for losses

Decision: Framing/ loss aversion

Risky Choice Framing

- The tendency to avoid risks when potential gains are emphasized and to take risks when potential losses are emphasized
- Risk averse for gains
- Risk seeking for losses

Attribute Framing

- The tendency to evaluate a characteristic more positively when it is presented in positive terms than in negative terms
- Ex. Ground beef that is 75% lean is rated as tasting better and less greasy than ground beef that is 25% fat

Decision biases: Status-quo bias/ default

○ The preference for maintaining one's current situation and opposing actions that may change the state of affairs

○ Choosing something you are already familiar with is tempting

○ Ex. Johnson & Goldstein (2003)

Decision: Anchoring

- The tendency to base decisions (and often rely too heavily) on salient or recent information
- Ex. Real estate agents anchored by a listing price
- Car mechanics anchored by customer estimates
- Legal experts' sentencing decisions were influenced by the roll of a die

Decision: Escalation of commitment

- The tendency to continue commitment to a failing course of expectation
- Investing more resources (time, money, social capital) in the hope of overturning initial failures; "Throwing good money after bad"
- Ex. In NBA, players drafted highly continued to receive playing time and additional contracts above and beyond their on-court performance

Decision: Overconfidence

- We **think** we can forecast uncertain values/outcomes better than we actually can
- Mistakes estimating time needed to get projects completed, deals secured, etc.
- It's not exactly the same as arrogance or overestimating ability; More about forecasting (making predictions) and having confidence intervals that are too narrow
- Ex. Almost all project constructions costs exceed initial estimates by over 20% (norm is by 100%)

Behavioral Interventions in Decision-making
Johnson & Goldstein (2003)

Next Class